What is claimed is:

1. A rectifier for rectifying alternating current into direct current, in which a three-phase generator includes a three-phase stator winding (9) and the phases (11, 12, 13) of the stator winding (9) are triggered via switching elements (15.1, 15.2; 16.1, 16.2; 17.1, 17.2) within a power circuit (8), which is controlled via a control part (2), which includes a controller component (3, 55),

wherein the rectifier (1) includes a control part (2) (control module) having control terminals (30), and a separate power circuit (8) (power module), in which all the power-conducting components (15.1, 15.2; 16.1, 16.2; 17.1, 17.2; 13) are designed as power MOS components (28) and integrated in a stacked construction (20).

2. The rectifier as recited in Claim 1,
wherein the power-conducting components (15.1, 15.2; 16.1, 16.2; 17.1, 17.2; 13) combined in the power circuit (8) (power module) are designed as power MOS components (28) that are contacted on both sides.

3. The rectifier as recited in Claim 1,
wherein the stacked construction (20) of the power circuit (8) (power module) includes a first substrate (25) and a second substrate (27), between which the power MOS components (28) are placed via contacts (29) on both sides and includes a cooling element (23, 24).

4. The rectifier as recited in Claim 3,
wherein the cooling device (23, 24) is situated on the top (21) of the stacked construction (20).

5. The rectifier as recited in Claim 3,
wherein the cooling device (23, 24) is situated on the bottom (22) of the stacked construction (20).

6. The rectifier as recited in Claim 1,
wherein the power circuit (8) (power module) is contacted outward over a surface.

7. The rectifier as recited in Claim 6,
wherein the power circuit (8) (power module) is contacted outward via heat conducting paste applied over a surface for dissipating heat.

8. The rectifier as recited in Claim 2,
wherein the power MOS components (28) are contacted on both sides via contact surfaces (29) designed as soldering points/soldering surfaces in the stacked construction (20).

9. The rectifier as recited in Claim 2,
wherein the power MOS components (28) are contacted on both sides via contact surfaces (29) designed as conductive adhesive surfaces in the stacked construction (20).

10. The rectifier as recited in Claim 1,
wherein the stacked construction (20) of the power circuit (8) (power module) contains a pressed screen and a first substrate (25), between which the power MOS components (28), contacted on both sides, are placed, as well as a cooling element (23, 24).

11. The rectifier as recited in Claim 1,
wherein the stacked construction (20) of the power circuit (8) (power module) includes an IMS substrate, to which the power MOS components (28) are connected.

12. The rectifier as recited in Claim 1,
wherein the control part (2) (control module) is designed in a single-chip construction and includes a controller-ASIC component (3, 55) having an integrated driver component (4).

13. The rectifier as recited in Claim 1,
wherein the control part (2) (control module) is designed in a multi-chip construction having a separate controller-ASIC component (3, 55) and a separate driver component (4).

14. The rectifier as recited in Claim 3,
wherein the power circuit (8) (power module) contains power terminals (45.1, 45.2; 46.1, 46.2) as contacts between the first substrate (25) and the second substrate (27) of the stacked construction (20).

15. The rectifier as recited in Claim 3 or 10,
wherein the power circuit (8) (power module) includes power terminals (46.1, 46.2) that are placed on the first substrate (25) of the stacked construction (20).

16. The rectifier as recited in Claim 1,
wherein the power MOS components (28) of the stacked construction (20) are encapsulated by an injection molded material (51).

17. The rectifier as recited in Claim 3 or 10,
wherein the control terminals (30) of the power circuit (8) (power module) extend outside on an exposed, coating-free surface (52) of one of the substrate surfaces (25, 27) of the stacked construction (20).

18. The rectifier as recited in Claim 16,
wherein the control terminals (30) extend outside laterally or in the vertical direction (53) from the power circuit (8) (power module).

19. The rectifier as recited in one or several of the preceding claims,
wherein the control part (2) (control module) is situated on a surface (21), made from injection molded material (51), of the power circuit (8) (power module) and is connected thereto via control terminals (30) extending outside in the vertical direction (53).

20. A device as recited in Claim 1,
wherein the control part (2) (control module) is provided with an application-specific element (54).

21. The rectifier as recited in Claim 3 or 10,
wherein the stacked construction (20) includes a base plate having metallic fixing elements (45, 50) projecting from the sides.

22. The rectifier as recited in Claim 3 or 10,

wherein the power circuit (8) (power module) contains a control part (2) (control module), which includes a standard-packaged IC (55) or an IC (3) having a wiring (58), each having control terminals (57) and to which the control terminals (30) of one of the substrates (25, 27) of the stacked construction (20) are connected.